

Claims

1. (Currently Amended). An isolated protein, wherein the isolated protein comprises an amino acid sequence set forth as ~~is SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:8, a fragment thereof, of a conservative substitution thereof a deletion thereof, an addition thereto, or a substitution thereto of less than 20% of the amino acid sequence, wherein the protein regulates an enzyme involved in the production of reactive oxygen intermediates.~~

2. (Currently Amended). The isolated protein ~~or fragment thereof~~ of Claim 1, ~~further comprising a deletion thereof, an addition thereto, or a substitution thereto of less than 1% of the amino acid sequence set forth as SEQ ID NO: 4 a deletion thereof, an addition thereto, or a substitution thereto of less than 20% of the amino acid sequence.~~

3. (Currently Amended). The isolated protein ~~or fragment thereof~~ of Claim 1, ~~further comprising a deletion thereof, an addition thereto, or a substitution thereto of less than 10% of the amino acid sequence.~~

4. (Currently Amended). The isolated protein thereof of Claim 1, wherein the isolated protein is ~~capable of regulating~~ regulates superoxide production.

5. (Currently Amended). The isolated protein thereof of Claim 4, wherein the ~~superoxide production is regulated by an effect of the isolated protein on~~ protein regulates a Nox enzyme.

6. (Currently Amended). An isolated protein, ~~wherein the isolated protein comprising an amino acid sequence set forth as is SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, or SEQ ID NO:8, a deletion thereof or an addition thereto of no more than about 20% of the amino acid sequence, or a conservative substitution thereof of less than 5% of the amino acids of SEQ ID NO: 4, wherein the conservative substitution comprises substitution of:~~

- a) alanine, serine, or threonine for each other;
- b) aspartic acid or glutamic acid for each other;
- c) asparagine or glutamine for each other;
- d) arginine or lysine for each other;
- e) isoleucine, leucine, methionine, or valine for each other; and,
- f) phenylalanine, tyrosine, or tryptophan for each other

wherein the protein regulates an enzyme involved in the production of reactive oxygen intermediates.

7-20. (Canceled).

21. (Currently Amended). A composition comprising the isolated protein, ~~the fragment thereof, of the conservative substitution thereof of Claim 1~~ and a pharmaceutically acceptable carrier.

22-23. (Canceled).

24. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth
as SEQ ID NO: 4.

25. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth
as SEQ ID NO: 6.

26. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth
as SEQ ID NO: 8.

27. (New) The isolated protein of claim 1, comprising an amino acid sequence set forth
as SEQ ID NO: 2.